

DIGITAL IMAGING DEVICE

ABSTRACT OF THE DISCLOSURE

The present invention is an inexpensive and accurate means of improving resolution when imaging a small digital display onto a larger photosensitive medium. The device includes a printer having a housing that encloses, in a common cavity thereof, an arrangement comprising a digital area array display, a plurality of lenses, and an image plane. The digital area array display, the plurality of lenses, and the image plane are spaced along an optical axis extending from the digital area array display through the plurality of lenses, and toward the image plane such that a digital image provided by the display can be brought into focus onto the imaging plane by the plurality of lenses. One of the plurality of lenses is a transposable lens, the transposable lens capable of being transposed out of the optical axis during the operation of the printer, to increase the perceived resolution of the digital image focused onto the imaging plane. The invention provides in another aspect, a jogging mechanism for jogging a lens, the device comprising a first translating means for jogging an transposable lens in a first direction, a second translating means for jogging the transposable lens in a second direction, and a biasing means. In an alternate aspect, the present invention also provides a method of imaging a digital display onto an image plane, whereby the method of imaging increases the perceived resolution of the digital image focused onto said imaging plane.